

WHAT IS CLAIMED IS:

1. A method for forwarding multicast message in network communication comprises:
 - a. configuring a forwarding match condition at an entry interface to the network device requiring forwarding multicast message, the forwarding match condition regulating forwarding rule for the multicast message;
 - b. matching the multicast message to be forwarded to network device through the interface with the forwarding match condition;
 - c. forwarding the multicast message according to the matching result.
2. A method for forwarding multicast message in network communication of claim 1, wherein said forwarding match condition is a multicast message forwarding rule group consisting of more than one multicast message forwarding rule.
3. A method for forwarding multicast message in network communication of claim 2, wherein said step b comprises:
 - b1. determining whether message entering through the interface is a multicast message;
 - b2. if yes, matching the multicast message with individual multicast message forwarding rule contained in the forwarding match condition;
 - b3. if no, forwarding the message in single broadcast mode.
4. A method for forwarding multicast message in network communication of claim 3, wherein said step b2 comprises step of matching the source address information in the multicast message with the source address information in the multicast message forwarding rule.
5. A method for forwarding multicast message in network communication of claim 3, wherein said step b2 comprises step of matching the source address and destination address information in the multicast message with the source address and destination address information in the multicast message forwarding rule.
6. A method for forwarding multicast message in network communication of claim 3, wherein said step b2 comprises step of matching the entry interface information in the multicast message with the entry interface information in the multicast message forwarding rule.
7. A method for forwarding multicast message in network communication of claim 3, wherein said step b2 comprises:
 - b21. determining whether the multicast message forwarding rule is configured at the interface of the network device;
 - b22. if yes, matching the information carried by the multicast message with corresponding information in the multicast message forwarding rule;
 - b23. if no, forwarding the multicast message according to the multicast routing forwarding list.
8. A method for forwarding multicast message in network communication of claim 2, 3, 4, 5, 6, or 7, wherein said step c comprises:

c1. determining whether there is multicast message forwarding rule matching with the information carried by the multicast message in the forwarding match condition;

c2. if yes, forwarding the multicast message according to the multicast message forwarding rule;

c3. if no, forwarding the multicast message according to the multicast routing forwarding list.

9. A method for forwarding multicast message in network communication of claim 8, wherein said step c2 comprises:

c21. determining the message forwarding destination configured in the multicast message forwarding rule is the forwarding exit interface or the next hop address;

c22. if the destination is the forwarding exit interface, and for the message configured lots of forwarding exit interfaces, the message being forwarded to all interfaces after copied;

c23. if the destination is the next hop address, forwarding the message according to the single broadcast routing forwarding list and for the message configured lots of next hops, the message is forwarded to all addresses of next hops after copied.

10. A method for forwarding multicast message in network communication of claim 9, wherein said step c23 comprises:

c231. searching the single broadcast routing forwarding list and determining the type of exit interface corresponding to the next hop address;

c232. if the type of exit interface is NBMA (point to multipoint), forwarding the message according to the exit interface;

c233. if the type of exit interface is broadcast, forwarding the message according to the next hop address in the single broadcast routing forwarding list and setting the property of the message as single broadcast message;

C234. if the type of exit interface is PTP, directly forwarding the message according to the next hop address regulated in the multicast message forwarding rule.